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Reply to the Editor:

This letter is to acknowledge the rheumatologic comments and queries by Juna regarding our recently published case reports[1,2] of aortic dissection without Marfan syndrome in ankylosing spondylitis. In regard to the second case,[2] Juna asked us whether other complementary explorations, such as computed tomography scanning, magnetic resonance imaging, or radionuclide imaging, were practiced to obtain the diagnosis of sacroiliitis. We practiced computed tomography scanning (Figure 1), not magnetic resonance imaging and radionuclide imaging, which demonstrated relatively apparent sacroiliitis, not typical ankylosis in the sacroiliac joints, despite no evident sacroiliitis on the abdominal radiography in the figure of the second case report. To be accurate, however, the diagnosis of the 2 cases might not be ankylosing spondylitis itself but spondyloarthropathies, which consist of ankylosing spondylitis, psoriatic arthritis, reactive arthritis, inflammatory bowel disease-related arthritis, and undifferentiated spondyloarthropathy, because the patients met only the European Spondyloarthropathy Study Group criteria[3] for the classification of spondyloarthropathy. In both cases, the diagnosis of psoriatic arthritis, reactive arthritis, or inflammatory bowel disease-related arthritis may be denied because of the absence of psoriasis, genitourinary or gastrointestinal infection, or inflammatory bowel disease. Undifferentiated spondyloarthropathy is one of the probable diagnoses as mentioned by Juna, because criteria might not be fulfilled for any specific spondyloarthropathy in the second patient. Even though the second case is not ankylosing spondylitis but undifferentiated spondyloarthropathy, there have been no cases of aortic dissection in undifferentiated spondyloarthropathy in the literature except for our case.

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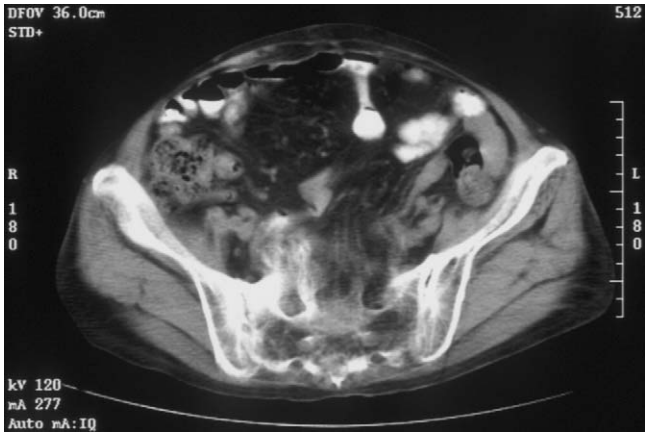

Figure 1. Computed tomography of the second case.

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Implantable cardioverter-defibrillator after left ventricular reconstruction?

To the Editor:

We read with great interest the article by O'Neill and coworkers,[1] which addresses an important question: Is implantable cardioverter-defibrillator (ICD) implantation indicated after left ventricular reconstruction (LVR)?

The authors present their large experience of LVR as a nontransplant surgical strategy for patients with heart failure, with a focus on postoperative malignant arrhythmias. Primary end points were all-cause mortality and appropriate ICD therapies, and median follow-up was 381 days. In addition to the LVR, a small proportion of patients (13%) received a specific antiarrhythmic surgical procedure consisting of cryoablation, about half (46%) underwent a mitral valve procedure, and most patients (88%) were revascularized. The main findings were that patients remain at high risk of ventricular arrhythmias after LVR and that the arrhythmias occur early postoperatively, in two thirds of the cases within 90 days. The authors recommend early ICD implantation or electrophysiology (EP)–guided ICD therapy before hospital discharge after LVR.

We have 2 questions regarding the study by O'Neill and coworkers[1]: (1) How many patients had clinical arrhythmias before surgical intervention? (2) Were EP studies conducted before surgical intervention in any of the patients?

The answers to these questions are important to assess the effect of the procedure per se on the incidence of postoperative arrhythmias. There is some theoretic or indirect evidence that LVR promotes electrical stability in the heart by different mechanisms.[2]

At our institution, most patients eligible for LVR undergo a preoperative EP study. In patients with spontaneous or inducible ventricular tachycardia (VT), we perform endocardial resection and cryoablation. In patients with preoperative clinical VT, we perform an EP study before hospital discharge, and in patients with inducible-only VT, we perform an EP study 3 to 6 months after the operation. In case of postoperative clinical or inducible VT, we recommend ICD implantation. We have recently reported our experience in a series of 53 consecutive patients undergoing LVR and surgical intervention for VT.[3] The success rate in terms of VT control was 90%. This finding is comparable to the results previously reported by Di Donato and colleagues[4] and Mickleborough and associates.[5]

Treat the cause, not the symptoms. ICD firing is associated with a certain amount of discomfort for the patient. ICDs indisputably save lives, but the price can be high both in terms of money and patient well-being. Therefore the aim must be to eliminate the need for ICD. By adding specific antiarrhythmic surgical procedures, such as endocardectomy and cryoablation, in patients undergoing LVR, we have a potentially curative treatment option at our disposal. In our view an EP study is necessary after LVR when surgical intervention for VT has been included to identify surgical failures in which ICD therapy is warranted.

In our opinion patients scheduled for LVR should be assessed for ventricular arrhythmias, and if present, specific arrhythmia surgery should be performed concomitantly, and the postoperative result should be verified by means of EP studies. With this protocol, implantation of an ICD will not be needed in most patients after LVR including surgical intervention for VT.

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Reply to the Editor:

As stated in the article, 30 patients had implantable cardiovertor-defibrillators inserted preoperatively, and the indication for the majority of these patients was secondary prevention, having had either a documented ventricular arrhythmia or aborted sudden death. Of these 30 patients, 2 had aborted sudden cardiac death, 3 had sustained ventricular tachycardia, and the remainder presumably had positive electrophysiologic (EP) studies. For groups 2 and 3 of our series, we do not have accurate data on who underwent EP studies preoperatively.

Dr Sartipy's group performs EP studies preoperatively. This approach is used to guide endocardial resection or cryoablation. Many of our patients (13%) underwent cryoablation for arrhythmias. However, the main indication for left ventricular reconstruction (LVR) was heart failure, rather than intractable arrhythmias.

LVR definitely has a role in the treatment of ventricular arrhythmias, but in patients with severe left ventricular dysfunction, border zones between scar and viable myocardium might provide arrhythmic substrate. In addition, patients in our series had evidence of marked left ventricular remodelling, with arrhythmic substrate in areas remote to the site of LVR.

Against that, the Coronary Artery Bypass Graft Patch Trial[1] failed to show a reduction in mortality when patients with markers for increased risk of ventricular arrhythmia underwent implantable cardioverter-defibrillator implantation at the time of coronary artery bypass grafting. This has been attributed to a reduction in the risk of arrhythmic death as a result of revascularization.[2] This indicates that perhaps the most important procedure to reduce arrhythmias is surgical revascularization.

Further prospective studies are required to elucidate the optimal strategy in this complex group of patients.

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Left ventricular assist device in heart failure

To the Editor:

I read with great interest the article by Nicholas C. Dang and colleagues, wherein they report their experience with left ventricular assist device (LVAD) in patients with chronic congestive heart failure.[1] There are various mechanical circulatory devices employed currently as a bridge to transplantation. The authors report their experience with the HeartMate (Thoratec Corp, Pleasanton, CA) device; however, the type of device engaged is not mentioned. It is pertinent to note that of HeartMate LVADs, the single-lead vented electrical devices have been linked with the best posttransplant survival rates.[2]

Even as vigilance for the predictive factors[1] will help in patient selection, improved clinical outcome should also be sought by careful timing of transplantation following LVAD insertion. By instituting patient support and rehabilitation for at least a month following the implantation, significant normalization of end-organ func-